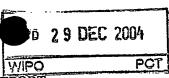
PATENT COOPERATION TREATY





INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

21 JAN 2005

Applicant's or agent's file reference	FOR FURTHER ACTION	ON See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)						
00809-02	International filing date (day/mor	onth/year) Priority date (day/month/year)						
International application No:	micriational rang tale (as)							
PCT/US03/23111	24 July 2003 (24.07.2003)	25 July 2002 (25.07.2002)						
International Patent Classification (IPC)	or national classification and IPC							
IPC(7): C23C 8/00, 16/00; H05H 1/24 and US Cl.: 427/569, 585, 250, 255.28								
Applicant								
UNIVERSITY OF VIRGINIA PATENT FOUNDATION								
This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.								
2. This REPORT consists of a total of sheets, including this cover sheet.								
This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).								
These annexes consist of	a total of sheets.							
3. This report contains indic	ations relating to the following	g items:						
I Basis of the rep	port	·						
II Priority	•							
ļ	nent of report with regard to no	ovelty, inventive step and industrial applicability						
IV Lack of unity of	of invention							
V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement								
VI Certain docum	ents cited							
VII Certain defects	VII Certain defects in the international application							
VIII Certain observ	VIII Certain observations on the international application							
Date of submission of the demand	Date	te of completion of this report						
20 February 2004 (20.02.2004)		06 December 2004 (06.12.2004)						
Name and mailing address of the IPEA	/US Aut	Authorized officer						
Mail Stop PCT, Attn: IPEA/US Commissioner for Patents		J-DE						
P.O. Box 1450		Shrive P Beck,						
Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Tele	ephone No. (571) 272-1700						
Tacshime Int. (100) 500 500 500								

Form PCT/IPEA/409 (cover sheet)(July 1998)

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.					
PCT/US03/231 (

I.	Basi	s of the report
1.	With	regard to the elements of the international application:*
	\boxtimes	the international application as originally filed.
	\boxtimes	the description:
		pages 1-20 as originally filed pages NONE , filed with the demand
		pages NONE , filed with the letter of
	\boxtimes	the claims;
	IZ3I	pages 21-27 , as originally filed
		pages NONE , as amended (together with any statement) under Article 19
		pages NONE , filed with the demand pages NONE , filed with the letter of
	\square	the drawings:
		pages 1-11, as originally filed
		pages NONE , filed with the demand
	_	pages NONE , filed with the letter of
		the sequence listing part of the description:
		pages NONE as originally filed pages NONE , filed with the demand
		pages NONE, filed with the letter of
2.		regard to the language, all the elements marked above were available or furnished to this Authority in the
		page in which the international application was filed, unless otherwise indicated under this item. e elements were available or furnished to this Authority in the following language which is:
		the language of a translation furnished for the purposes of international search (under Rule23.1(b)).
		the language of publication of the international application (under Rule 48.3(b)).
	Ш	the language of the translation furnished for the purposes of international preliminary examination(under Rules 55.2 and/or 55.3).
3.	With	regard to any nucleotide and/or amino acid sequence disclosed in the international application, the national preliminary examination was carried out on the basis of the sequence listing:
		contained in the international application in printed form.
		filed together with the international application in computer readable form.
	Ш	furnished subsequently to this Authority in written form.
	Ц	furnished subsequently to this Authority in computer readable form.
		The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
-		The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.
4.		The amendments have resulted in the cancellation of:
		the description, pages NONE
		the claims, Nos. NONE
		the drawings, sheets/fig NONE
5.		This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**
this	repor	ement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in 1 as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17). Eplacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/US03/23111

V.	Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement					
1.	STATEMENT					
	Novelty (N)	Claims	1-30	YES		
	, , ,	Claims	NONE	NO		
	Inventive Step (IS)	Claims	NONE	YES		
		Claims	1-30	NO		
	Industrial Applicability (IA)	Claims	1-30	YES		
		Claims	NONE	NO		

Claims NONE

2. CITATIONS AND EXPLANATIONS

Claims 1-30 lack an inventive step under PCT Article 33(3) as being obvious over Hayess et al. (US 6,210,744 B1), in view of Hirsch et al. (US 4, 101,713).

Hayess, in column 10, line 40, to column 12, line 22, teaches a method of depositing a thermal-insulating layer on a bond coat, wherein both layers are deposited by a DVD method. The method is electron beam evaporation. The process and apparatus is read upon in the cited passage. The reference fails to teach the dispersoid in the bond coat. However, Hirsch teaches dispersoids in the bond coat act to strengthen the coating (column 4, lines 13-64). The dispersoid may be aluminum oxide, which reads on the applicant's claims. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use dispersoids in the process taught by Hayess. By doing so, the bond coat is strengthened. All other limitations are taught, or made obvious throughout the reference.

Claims 1-30 the criteria set out in PCT Article 33(4), and thus meets industrial applicability because the subject matter claimed can be made or used in industry.

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